

WHAT IS CLAIMED IS:

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5 1. A semiconductor device, comprising:
a cylindrical substrate; and
at least one semiconductor chip formed on the
circumferential surface of said substrate, said
semiconductor chip being bent along the surface of said
substrate.

10 2. The semiconductor device according to claim 1,
wherein a plurality of semiconductor chips are mounted
to the outer circumferential surface of said substrate
a predetermined distance apart from each other in the
outer circumferential direction of said substrate.

15 3. The semiconductor device according to claim 1,
wherein a plurality of semiconductor chips are mounted
to the outer circumferential surface of said substrate
a predetermined distance apart from each other in the
longitudinal direction of said substrate.

20 4. The semiconductor device according to claim 1,
wherein said semiconductor chip is arranged to cover
the entire outer circumferential surface of said
substrate.

25 5. The semiconductor device according to claim 1,
wherein said semiconductor chip is arranged on the
inner circumferential surface of said substrate.

6. The semiconductor device according to claim 1,
wherein a plurality of semiconductor chips are arranged
on the inner circumferential surface of said substrate

a predetermined distance apart from each other in the inner circumferential direction of the substrate.

7. The semiconductor device according to claim 1, wherein a plurality of semiconductor chips are arranged on the inner circumferential surface of said substrate a predetermined distance apart from each other in the longitudinal direction of the substrate.

8. The semiconductor device according to claim 1, wherein said semiconductor chip is arranged over the entire inner circumferential surface of said substrate.

9. The semiconductor device according to claim 1, wherein said semiconductor chips are arranged on both the outer circumferential surface and the inner circumferential surface of said substrate.

10. The semiconductor device according to claim 1, wherein the outer circumferential surface of said substrate is sealed with a resin layer.

11. The semiconductor device according to claim 1, wherein a reinforcing body is arranged inside said cylindrical substrate.

12. The semiconductor device according to claim 1, wherein a plurality of terminals for connection are arranged in one edge portion in the longitudinal direction of said cylindrical substrate, and said terminals are electrically connected to said semiconductor chip.

13. A semiconductor device, comprising:

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a cylindrical substrate; and

at least one stacked body formed on the circumferential surface of said substrate, said stacked body including a plurality of semiconductor chips stacked one upon the other and being bent along the surface of said substrate.

14. The semiconductor device according to claim 13, wherein a plurality of said stacked bodies are arranged a predetermined distance apart from each other in the outer circumferential direction of said substrate.

15. The semiconductor device according to claim 13, wherein a plurality of said stacked bodies are arranged a predetermined distance apart from each other in the longitudinal direction of said substrate.

16. The semiconductor device according to claim 13, wherein said stacked body is arranged to cover the entire outer circumferential surface of said substrate.

17. The semiconductor device according to claim 13, wherein said stacked body is arranged on the inner circumferential surface of said substrate.

18. The semiconductor device according to claim 13, wherein a plurality of stacked bodies are arranged on the inner circumferential surface of said substrate a predetermined distance apart from each other in the inner circumferential direction of the

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substrate.

19. The semiconductor device according to claim 13, wherein a plurality of stacked bodies are arranged on the inner circumferential surface of said substrate a predetermined distance apart from each other in the longitudinal direction of the substrate.

20. The semiconductor device according to claim 13, wherein said stacked body is arranged over the entire inner circumferential surface of said substrate.

21. The semiconductor device according to claim 13, wherein said stacked bodies are arranged on both the outer circumferential surface and the inner circumferential surface of said substrate.

22. The semiconductor device according to claim 13, wherein the outer circumferential surface of said substrate is sealed with a resin layer.

23. The semiconductor device according to claim 13, wherein a plurality of terminals for connection are arranged in one edge portion in the longitudinal direction of said cylindrical substrate, and said terminals are electrically connected to said semiconductor chip.

24. A method of manufacturing a semiconductor device, comprising the steps of:

bending at least one semiconductor chip; and

mounting the bent semiconductor chip on at least

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25. The method of manufacturing a semiconductor device according to claim 24, wherein said semiconductor chip is held by a holder having a curved surface in said bending step.

25. The method of manufacturing a semiconductor device according to claim 24, wherein said semiconductor chip is held by a holder having a curved surface in said bending step.

26. A method of manufacturing a semiconductor device, comprising the steps of:

mounting at least one semiconductor chip on at least a region of the surface of a flexible substrate; and

bending said substrate into a cylindrical form.